Claims:

1.   A method of creating and distributing compact satellite orbit models comprising:

   receiving satellite signals from at least one satellite and at least one receiving station;

   extracting at least a portion of the satellite tracking data from said satellite signal, representing said data in a first format;

   transmitting the formatted data to a remote receiver; and

   at the remote receiver, representing said formatted data in a second format supported by the remote receiver.

2.   The method of claim 1 wherein said satellite tracking data comprises at least one of a satellite orbit model or a satellite clock model.

3.   The method of claim 1 wherein said satellite tracking data comprises at least one of: data representative of a satellite orbit model, orbit model, data representative of a satellite clock model.

4.   The method of claim 1 wherein said second format is a format that is prescribed by said remote receiver.

5.   The method of claim 1 wherein said second format comprises parameters defined in ICD-GPS-200.

6.   The method of claim 1 wherein said first format comprises a first set of terms that define a first form of orbit model, and said second format comprises a second set of terms that define a second form of orbit model, and said second set of terms is larger than said first set of terms.

7.   The method of claim 1 wherein said first format comprises a first set of terms that define a first form of orbit model, and said second format comprises a second set of terms that define a second form of orbit model, where said second set of terms

contains said first set of terms.

8.   The method of claim 1 wherein said first format comprises a first set of terms that define a first form of orbit model and said second format comprises a second set of terms that define a second form of orbit model, and at least one term of said first set is defined as a number with lower resolution than the corresponding term in second set.

9.   The method of claim 1 where said data in a first format requires fewer bits to encode it than said data in a second format.

10.   The method of claim 1 wherein said remote receiver is a GPS receiver.

11.   The method of claim 1 wherein said remote receiver is a satellite positioning system receiver.

12.   The method of claim 1 wherein said second format is a standard format for providing satellite models to a global positioning system receiver.

13.   The method of claim 1 wherein said transmitting is performed using a wireless communications link.

14.   The method of claim 13 wherein said transmitting is done without requiring from said remote receiver data representative of said remote receiver's position.

15.   The method of claim 1 where an accuracy of the data in said first format is increased by decreasing a time interval represented by said formatted data.

16.   A method of creating and distributing a compact orbit model comprising:
        receiving satellite signals from at least one receiving station;
        extracting at least a portion of the satellite tracking data from the satellite signal, where said portion comprises a first number of orbit terms that define a first orbit model;

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formatting said portion to form formatted data having a second number of orbit terms that define a second orbit model, where said first number is greater than said second number;

transmitting the formatted data to a remote receiver; and

at the remote receiver, expanding the formatted data to have the first number of terms.

17. The method of claim 16 wherein said satellite tracking data comprises at least one of a satellite orbit model or a satellite clock model.

18. The method of claim 16 wherein said satellite tracking data comprises at least one of: data representative of a satellite orbit model, orbit model, data representative of a satellite clock model.

19. The method of claim 16 wherein said second orbit model is a compact orbit model.

20. The method of claim 16 wherein said expanding step results in a data format that is prescribed by said remote receiver.

22. The method of claim 20 wherein the data format having the first number of terms comprises parameters defined in ICD-GPS-200.

23. The method of claim 16 where said terms in said second orbit model require fewer bits to encode it than said terms in a first orbit model.

24. The method of claim 16 wherein said remote receiver is a GPS receiver.

25. The method of claim 16 wherein said remote receiver is a satellite positioning system receiver.

26. The method of claim 16 where an accuracy of the data in said second orbit model is increased by decreasing a time interval represented by said formatted data

defining said second orbit model.

27. A method of creating a compact orbit model comprising:

provideing a satellite orbit model having a first set of terms;

adjusting the first set of terms to produce a compact orbit model having a second set of terms, where a number of terms in the first set of terms is greater than a number of terms in said second set of terms.

28. The method of claim 27 wherein said adjusting step further comprises:

zeroing a plurality of terms in said first set of terms.

29. The method of claim 28 wherein said adjusting step further comprises:

adjusting a plurality of non-zero terms in the second set of terms in response to the effects of zeroing terms in the first set of terms.

30. Apparatus for creating and distributing compact satellite orbit models comprising:

at least one satellite signal receiver for receiving satellite signals from at least one satellite;

means for extracting at least a portion of the satellite tracking data from said satellite signal, representing said data in a first format;

a transmitter for transmitting the formatted data to a remote receiver; and

at the remote receiver, representing said formatted data in a second format supported by the remote receiver.

31. The apparatus of claim 30 wherein said second format is a format that is prescribed by said remote receiver.

32. The apparatus of claim 30 wherein said second format comprises parameters defined in ICD-GPS-200.

33. The apparatus of claim 30 wherein said first format comprises a first set of terms that define a first form of orbit model, and said second format comprises a

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second set of terms that define a second form of orbit model, and said second set of terms is larger than said first set of terms.

34. The apparatus of claim 30 wherein said transmitter is a wireless communications transmitter.